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ABSTRACT

This study adds to the effective schools debate a criticism of existing criteria--based on standardized achievement test profiles--for targeting schools for intervention programs. Qualitative and quantitative methods of gathering data result in conflicting assessments of the magnet elementary school studied as needing or not needing intervention. After analysis of quantitative data, including standardized district tests in which children generally scored above norms and questionnaires indicating high teacher satisfaction, the school would not be assessed as needing intervention. However, qualitative data, including teacher interviews and classroom observations focusing on the school's "laboratory" enrichment classes, result in a more critical evaluation of the school as a prime target for effective schools intervention. These apparently conflicting findings are interpreted as complementary, together providing the detailed knowledge of the school necessary for a funding decision. Generalizations offered districts on data gathering procedures include: collecting data for each school on key process and content factors such as attendance or suspensions, as well as achievement data; gathering qualitative data in as many schools as possible; targeting every school for some intervention; developing school site capacity for self-monitoring; and providing specific additional intervention for schools most in need. (MJL)

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Resolving Conflicting Results from Quantitative and Qualitative
Methodologies: A Case Study of a Magnet School

by

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Paper presented at the annual meetings of the
Midwestern Educational Research Association,
September 29 - October 1, 1983

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I want to cast this presentation within the framework of the effective schools debate. In particular, I want to focus on the seeming overriding interest in student achievement as the outcome criteria for targeting intervention at the school building level. While there are various definitions of an effective school, the major factor in all of them is how students perform on standardized tests. Attention has been focused on what goes on in schools that have high or rapidly improving student achievement. The result has been the publication of lists of Effective School components (e.g., Brookover and colleagues list eight components, while Edmonds lists five). The most frequent implication drawn from this literature is that districts wanting to improve student achievement should target intervention on those process and content elements found in schools previously identified as effective.¹ A second implication frequently drawn is that only schools with low achievement scores are prime candidates for intervention. While the first implication may have some merit it remains, as yet, an untested hypothesis (Pink, 1983; Tomlinson, 1982). The second implication is, I believe, both ungrounded and dangerous. It is ungrounded because nobody has made such a statement. It is dangerous because it is possible, as I will demonstrate later, that schools enjoying high achievement profiles are equally strong candidates for the intervention suggested by the effective schools literature. Specifically, such schools need intervention in such areas as curriculum alignment, instructional practices, leadership and expectations to improve both the academic and social climates for their students and faculty.

My major point is that focusing on achievement as the indicator of effective and ineffective schools, to the exclusion of other key building level factors such as student affect, student-teacher interactions, quality of instruction, and instructional leadership can lead to poor decisions about where to target limited resources.

¹ This paper focuses on the issue of school site selection for intervention. I have addressed elsewhere the issue of intervention content (Pink, 1983).

A second issue I want to focus on in this paper is the use made of quantitative and qualitative data within the effective schools literature and in the decision making process at the school district level. The debate in the literature centers around two issues. First, the usual, and arguably flawed, way in which "effective schools" are selected for initial investigation i.e., by identifying schools rated as exemplary on some set of criteria, predominantly achievement, and contrasting them with schools rated as inferior on the same criteria: what has become known as an "outlier" strategy (Brookover et al, 1978; Purkey and Smith, 1982). Briefly, the problem is that by contrasting extreme schools, "discovered" differences in process and content are magnified in their importance, re. student achievement. A fairer test, it is argued, would be a comparison between "high achieving" schools and "average" schools: in this way difference between process and content would be more meaningful. The second issue in the literature is the generalizability provided by using either a small sample case study methodology, i.e., a qualitative methodology, and/or non-random sampling, i.e., either a qualitative or a quantitative methodology. Here the central issue is the validity of descriptions of effective practices that are not generated via "standard" methodological procedures (Mackenzie, 1983; Pink, 1982). The problem is that, as yet, too few researchers and practitioners know how to interpret qualitative data (Pink, 1983). The position held by many quantitative researchers, for example, is that ethnographic methods are simply too subjective to be valid. I do not wish to debate that position in this paper. Suffice it to say, that the rapidly accumulating wealth of tightly controlled ethnographic work done in schools is making this position less popular in more thoughtful circles. However, as a result of this reluctance within the measurement field to grant legitimacy to ethnographic findings, school districts have historically made little use of such work: the fact that few individuals at the school district level have been trained in qualitative methods has also contributed to the neglect of this work

in decision making. This omission, I want to argue, has further weakened the decision making capability of the school district.

Simply stated, the problem at the school district level is that schools in need of intervention are frequently overlooked when standardized test scores are used as the only means of screening. What I want to demonstrate is that by using differing methods of gathering data, i.e., quantitative and qualitative, the same school can be categorized as needing, or not needing, intervention. Thus, I want to argue that we should increase the amount of qualitative data gathered at the district level. These data, used in conjunction with the more traditional quantitative data, can greatly increase the decision making power of the school district re. both the type and scope of targeted intervention.

The Study Setting

This study was completed as part of an evaluation of a community oriented magnet school program in a large and ethnically diverse metropolitan area. The program is located in two buildings. Alpha school houses grades one through four: total enrollment 371, with a minority enrollment of 55 percent.² Beta school houses grades five and six: total enrollment 222, with a minority enrollment of 54 percent. From a programmatic viewpoint the two buildings are considered one school. However, they are about a mile and a half apart and have separate principals. It is a magnet school in the sense that it draws students only from its own attendance area: the major intent was to halt student movement to private schools and attract residents with school-age children into the area. The principal feature of the school is the community oriented laboratory program. A lab consists of a series of 1½ to 2-hour sessions focusing on a single topic (e.g., History of our Environment, Consumer Needs and Limitations, Indian Tribes, Chilling Tales). A student will select five different four-week labs throughout the year: labs meet three afternoons each week. All

² The names of the schools have been changed.

teachers teach labs. Students enjoy mixed age groupings within the two buildings. Field trips into the community and guest speakers are an important part of the program. While the emphasis is on basic skills, many activities are enriching in their orientation.

Methods and Procedures

A range of data were gathered at the two sites. Five sources of data are pertinent to this paper. First, district spring testing using ITBS was supplemented to include Reading and Mathematics for all first and second graders. Second, the CTBS Science tests were administered in the spring to students in all grades one through six. Third, all teachers completed a questionnaire designed to measure their views about the school, labs, students and parents. Fourth, all teachers and administrators were interviewed to explore in greater depth their views about the lab program and how it might be improved. Fifth and finally, observations were made throughout the year of all teachers teaching labs (N=22) to generate information about the way labs were taught and organized, student-teacher interactions, time on task, and teacher expectations.

Results of Quantitative Data Analysis

Let us examine the three sources of data gathered via traditional quantitative methods. First, examination of the ITBS data for reading and mathematics show that both Alpha and Beta buildings are doing a very creditable job. (See Table 1.) In only one of sixteen cases where district norms are available, i.e., grades three through six, do students fall below these district norms. The one case is sixth grade students in the self contained Gifted and Talented rooms. Moreover, with the single exception of fourth grade reading, the mean grade equivalents also exceed the national norms for grades one through six. The fourth grade reading score is one month below the national norm. Even when breaking out the Gifted/Talented students at Beta school from their regular peers, things still look encouraging for an urban

school district. Gifted/Talented students, as expected, exceed national norms. While the regular fifth graders equal the national norms, their peers in the sixth grade are .6 years and .4 years below these norms for reading and mathematics respectively. Looking at the overall pattern of ITBS scores, one can conclude from these data that the Community Magnet School is doing well enough to be out of the running for intervention based on the effective school literature.

Second, examination of data from the CTBS Science test indicates an equally favorable interpretation of the effectiveness of the magnet school. (See Table 2.) More specifically, with one exception, means exceed the national norms in grades one through six: students in second grade score a scant .2 years below the national norm. Gifted/Talented students, as expected, score well above the national norms for grades five and six. Again, we could conclude from these data that this school would not be a candidate for intervention based on the effective school literature.

Third, responses to a questionnaire completed by all teachers at both sites indicate a generally high level of satisfaction: there are no significant differences between the two buildings. The vast majority of teachers (a) enjoy teaching and the setting in which they teach (b) feel they get sufficient support, and (c) think there is adequate instructional leadership in their building (see Table 3). Teachers are also supportive of the lab program. A majority of teachers, for example, believe (a) the labs are important, (b) they teach well in labs, (c) they get adequate support in teaching labs, and (d) that labs should be continued next year. (See Table 4.) They do show some concern, however, about the selection and sequencing of the labs: Alpha teachers have more concerns about sequencing, while Beta teachers are concerned about scheduling. (See Table 4.) Teacher responses to questions about students are equally as positive. (See Table 5.) Here, there is some concern at Alpha school about (a) learning basic skills, (b) students working hard in labs, (c) student behavior, and (d) school spirit. Teachers at Beta school show some concern about

students working hard in labs.

Finally, teacher responses to questions about parents are also generally positive. While a sizeable proportion of teachers offer no opinion to any of the four questions, teachers who do answer indicate only a concern about unreasonable parents expectations. (See Table 6.)

In evaluating these three sets of quantitative data, we would conclude that this magnet school is doing a good job. The ITBS and CTBS scores place the school in the upper quartile of schools in the district. The questionnaire data show a generally high level of satisfaction, as well as indicating where some attention must be focused prior to the next academic year. From the school district perspective, armed with the data usually available at key decision making points, this magnet school would not be targeted for intervention. Rather, this school might well be singled out as an example of an exemplary program.

Results of Qualitative Data Analysis

Let us now examine the two sets of qualitative data collected at the same buildings. These data are interesting because they reveal a somewhat different view of the schools. Teachers at Alpha (N=13) and Beta (N=7) were interviewed using a semi-structured format. Interviews lasted approximately 45 minutes and ranged over issues such as teacher enjoyment of labs, planning and support time, student response to labs, evaluation of student achievement, instructional leadership, improvement of labs, and self-rating as a teacher.

Teacher interviews at Alpha can be summarized as follows:

- (1) The vast majority, 11 of 13, indicated that they enjoyed the labs. Teachers cited less formality, ability to apply skills, different mixing of students, and opportunity to teach in different ways as reasons supporting their views. The most frequent criticisms were (1) over-emphasis on fun vs. basic skill instruction, and (11) discipline problems as a result of varying classroom mixings.
- (2) Teachers were divided on the issue of retaining labs in their present configuration. A majority of teachers wanted to retain the labs, i.e., 7 of 13. Two different reasons for discontinuing the labs were presented by the remainder. Some first grade teachers thought that they could be more effective if students

did not move around, but spent more time on basic skills (basically an argument for more structured time on basics). The second line of argumentation was that students need to gain more self-identity and that this could be best achieved by keeping the classroom intact. This same 7 to 6 division was also found in questioning about preferences for mixed or self-contained classrooms: some first grade, regular, and special education teachers favoring self-contained classrooms.

- (3) Teachers generally thought that the present one-half day planning time was insufficient: this planning time was both too short and poorly timed. The teachers saw more utility to having a larger block of time at the beginning of the year and at the Christmas break. Ten of thirteen indicated that they used a considerable amount of their own time to prepare for labs. Moreover, they indicated that planning should be a greater priority at the beginning of the year -- labs planned by the year rather than on an ad hoc basis from series to series.
- (4) Eleven of thirteen teachers thought the planning support adequate: this is interesting since Alpha school had experienced difficulties retaining a full complement of lab support personnel. Trips and speakers were well coordinated. Several expressed the need to study the efficiency of the aides in the building.
- (5) The majority of teachers, i.e. 10 of 13, report that collaboration between the teachers re. both planning and team teaching has been next to nonexistent. They indicated that the opportunity presently did not exist to do this: they report no encouragement for such involvement.
- (6) Teachers were unanimous in their agreement that students enjoy the labs. However, they do indicate that some of this enjoyment is a function of specific teacher personalities and an over-emphasis on fun in some classrooms.
- (7) Of those teachers offering an opinion, i.e., 7 of 13, five indicate that the labs are of uneven quality. They indicate that some teachers are "dusting off lab materials each year." and that some teachers "take advantage of a non-graded experience." They advocate a stronger planning and monitoring system.
- (8) While not generating an official grade for the student report card, labs are "graded." Teachers report that they use a combination of tests, graded worksheets, and classroom products as well as routine questioning to monitor student progress: not all teachers use all such activities. Several report sending written comments back to homeroom teachers.
- (9) Teachers most frequently offered the following ways to improve the labs program: increasing planning times, spending less time per week in labs, having smaller classes, recruiting instructors and assistants from the community, planning on a yearly cycle, providing more class choices, grading the lab, providing a better match between student and lab, and making the lab experiences more even in quality.
- (10) A majority of the teachers, 10 of 13, indicate that the principal is a good leader. The principal is characterized as very concerned about both faculty and students. She is seen as overworked. Instructional leadership is seen as suffering as a consequence of this workload. Several teachers want to see the lab process "tightened up".
- (11) On a scale of 1 to 5, with 1 being superior, 3 being average, and 5 being poor, Alpha teachers rated the quality of instruction in the building as 1.8.

Teacher interviews at Beta can be summarized as follows:

- (1) Six of the seven teachers interviewed at Beta school indicated that they enjoyed the labs. "Interest in different topics," "challenges," "assists social development," were the most frequently cited as supportive evidence. The one dissenting teacher saw movement a problem and thought students too immature to benefit from repeated and different classroom mixing.
- (2) Views varied about retaining the labs. Four teachers favored retention, two were opposed and one was unsure. Teachers opposed thought (I) that more time should be devoted to basic skills in existing lassroom groups, (II) that the lab experience was too unstructured in other classrooms, and (III) that some teachers were not as hardworking or caring as self. Flexibility in teaching and range of content options surfaced most frequently from those favoring retention. Interestingly, this same division was found in the responses to the question about mixed vs. self-contained classrooms: four teachers favoring mixed groups as a means of giving students different academic and social experiences, while three teachers favored self-contained groups as a way of assisting with both discipline and social development.
- (3) Teachers were unanimous in their belief that one half day planning time per lab is inadequate. Several saw the required lesson plan as an imposition: it was suggested that these plans are sometimes drawn up after the lab is in session. One day was most frequently cited as ideal: several indicated, however, that teachers frequently "recycled last year's labs... thus not using the half-day planning time properly..."
- (4) Five of seven teachers saw the planning support as good. Coordination of trips and speakers were singled out as strong. A majority voiced the need to plan the content and sequencing of labs on a yearly basis.
- (5) All teachers at Beta saw collaboration about labs as nonexistent. Some such activity had occurred for new teachers, but it did not occur on a regular basis: there was some feeling that collaboration was unwelcome and that this might have been a product of past personnel problems in the building. No teacher felt any pressure to collaborate.
- (6) Every teacher thought that their students enjoyed labs. Several cautioned that while overall response was positive, the level of enjoyment was tempered somewhat by both teacher and content. Some labs were more popular than others, student assignment sometimes presented a problem.
- (7) Six of seven teachers thought that labs were of an uneven quality. Frequent mention was made of the fact that (I) many labs were "recycled" (II) too much emphasis was placed on fun, and (III) that teacher performance was not being closely monitored by the administration.
- (8) Beta teachers used a variety of devices to monitor student performances in this non-graded lab activity. Frequently cited were tests, corrected worksheets, products (e.g., project booklets), demonstration, and questioning. Several indicated that they called parents and notified homeroom teachers of poor performance.
- (9) Several factors surfaced when asking teachers for ways to improve the lab: better planning and coordination of labs on both a yearly and series-by-series basis, fewer labs each year, stronger instructional leadership, testing for missing skills,

follow-up activities for parents, emphasis on math and reading, smaller classes, and improvement of school morale for both teachers and students.

- (10) A majority of teachers, 4 of 7, indicate that there is insufficient instructional leadership in the building. The principal is characterized as a person who has not yet been able to work with faculty to improve both morale and the quality of classroom instruction. Several teachers indicate a need to reshape the lab program by holding teachers more accountable for planning, content, and student outcomes.
- (11) On a scale of 1 to 5, with 1 being superior, 3 being average and 5 being poor, Beta teachers rated the quality of instruction in the building as 2.0.

What is interesting here is that teachers presented a different picture of their buildings, than the view emerging from analysis of the quantitative data. In particular, teachers were more critical of (a) the concept of the lab program, (b) the classroom preparation done by other teachers, (c) the collaborative planning that was possible, and (d) instructional leadership in the building: differences between the two buildings also begin to emerge. Teachers seemed very willing in this informal and non-threatening setting, with anonymity guaranteed, to talk at length about both the strengths of the program and the problems the program needs to confront. It seemed that in this setting, teachers were willing to reveal the school as they saw it and not as they thought it should seem when decisions were being made about the continuation of special funding. Clearly, when using this interview data, the school must be evaluated differently than when only the quantitative data were used.

Classroom observations were made throughout the year. Each teacher was visited two or three times and each visit lasted approximately one-half hour. As abbreviated as these observations were, they revealed several important process and content variations both within and between the two buildings. Several labs at Alpha and Beta provided a variety of opportunities for students to be both creative and actively involved in learning. In each case, these labs were well planned and organized: the teacher showed a genuine interest in the subject matter. The classroom ambiance reflected a very positive and caring setting. Teachers in these labs developed and nurtured student enthusiasm for learning in a very deliberate way. The classrooms were fun to visit. Unfortunately, this description does not describe the

majority of the lab settings. In general, lab activities at Alpha and Beta appear to:

- (a) model traditional classroom instruction: students engaging in individual seatwork, teachers lecturing to a large group
- (b) utilize few new or innovative instructional materials
- (c) demonstrate little detailed long-range planning, and inadequate classroom management skills. Off task behavior was high and there is little accommodation of differing learning rates in the same classroom
- (d) make little use of activities to maximize basic skill acquisition: few attempts were made to systematically integrate lab subjects with reading and mathematics skills. Emphasis on worksheet or busy-work activity rather than integrative and critical thinking skills
- (e) rely heavily on materials prepared for previous labs
- (f) generate little real excitement or enthusiasm among students: in several classrooms students went unchallenged even as they engaged in activities unrelated to the "task at hand". Little attempt was made to relate daily lab activities to short and long term objectives (e.g., students didn't know why they were doing certain activities).
- (g) receive little, if any, monitoring/instructional leadership: teachers were developing their own strategies and materials. Team teaching was nonexistent. No structure existed to discuss lab related issues on a regular basis. No use was made of regular grade level or content area meetings.

It is evident that the observational data are in conflict with the quantitative data presented earlier. This should not be too surprising since they asked, in part, somewhat different questions. It is more surprising, however, since the usual practice at the school district level is not to collect qualitative data.

Toward a Resolution of Competing Findings

I need not labor the point that the two kinds of data say something very different about the two buildings. In simple terms, the quantitative data suggest a successful, healthy school while the qualitative data suggest a school in academic and organizational disarray. Consequently, I would suggest that this school is a prime candidate for intervention based on the effective school literature. We do not know, for example, how well these students might achieve if the school were better organized and managed. It is evident, however, that student achievement data are

insufficient grounds on which to base funding decisions.

This seeming conflict of findings from differing sources presents a problem for the school district decision maker. The decision maker cannot dismiss the qualitative data on the grounds that it is based on a small sample, or that it represents little more than the subjective biases of the researcher. Here, the data are collected in the target school and are generated for the most part by the actors in the building. There is no real conflict of findings. The qualitative data have yielded information about the schools that extends the quantitative data. In fact, these data are highly complementary. Moreover, one could make a very strong case for not wishing to make decisions about an appropriate intervention strategy without information generated by both methodologies.

The decision about where to target limited intervention funds is further complicated by two other factors. First, similar data have not been collected for all other schools in the district. Thus, it might be considered unfair to single out a school for intervention on the basis of data only available at that building. Second, student achievement data available from all schools indicate that many other schools in the district are doing significantly poorer than Alpha/Beta, and should therefore stand ahead of it when it comes time to distribute the limited intervention funds.

While there might be no way to resolve this complicated issue so that everybody is satisfied, there are several observations to be made about the data gathering activities conducted by every school district:

- (1) Quantitative data should be collected in every school on a range of of key process and content factors. These should include not only achievement data, but also data about such climate factors as absences, tardies, dropouts, disciplinary referrals, suspensions, course failures, student and teacher affect, and parental satisfaction.
- (2) Qualitative data should also be gathered in every district and in as many different schools as possible, in an effort to detail what goes on in these buildings.

- (3) Some intervention re. both process and content should be targeted to all buildings in the district. Every school should develop a plan to improve both productivity and climate. The district should provide some level of support to enable the school to realize its plan.
- (4) Each district should build a school site capability to monitor its own "health". In this way each building could identify and work collaboratively to resolve its own problems: consultants could be used where appropriate.
- (5) Specific additional intervention should be targeted at those schools most in need and without the capacity to solve their own problems. Need should be measured in terms of achievement scores and key school climate factors such as student and teacher morale, student-teacher interactions, disciplinary practices, instructional leadership and curriculum alignment.

It is evident that without such a plan to relate intervention to our detailed knowledge about what happens at the building level, we will continue to be less than completely successful in creating effective schools.

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TABLE 1

ITBS Scores in Reading and Mathematics
for Alpha and Beta Schools, Spring 1983
(Figures in Mean Grade Equivalents)

		Reading				Mathematics			
	<u>Grade</u>	<u>All Students</u>	<u>Regular Students</u>	<u>Gifted & Talented Students</u>	<u>National Norms</u>	<u>All Students</u>	<u>Regular Students</u>	<u>Gifted & Talented Students</u>	<u>National Norms</u>
ALPHA	1(83) ^a	2.0(-) ^b			1.9	1.9(-)			1.8
	2(84)	3.3(-)			2.9	3.0(-)			2.8
	3(70)	4.0(3.3)			3.9	4.1(3.5)			3.9
	4(53)	4.8(4.3)			4.9	5.2(4.5)			4.8
BETA	5(74)	6.4(5.3)	5.9(5.1)	7.6(7.5)	5.9	6.4(5.6)	5.9(5.5)	7.4(7.4)	5.9
	6(78)	7.4(6.0)	6.2(5.9)	9.1(8.6)	6.8	7.0(6.4)	6.4(6.3)	8.0(8.6)	6.8

a - Figure in parenthesis after grade level is sample size N.

b - Figure in parenthesis after grade equivalent is District mean grade equivalent.

TABLE 2

CTBS Science Scores
for Alpha and Beta Schools, Spring 1983

(Figures in Mean Grade Equivalents)

	<u>Grade</u>	<u>All Students</u>	<u>Regular Students</u>	<u>Gifted & Talented Students</u>	<u>National Norms</u>
ALPHA	1(86) ^a	1.9			1.9
	2(78)	2.7			2.9
	3(43) ^b	4.7			3.9
	4(49)	5.3			4.9
BETA	5(82)	7.5	6.6	9.7(28)	5.9
	6(69)	9.4	8.0	10.8(31)	6.9

a - Figure in parenthesis is sample size N.

b - Sample of students attending in 1981-82 and 1982-83.

TABLE 3

Teacher Responses to Questions About
Alpha or Beta School (Figures in Percentages)

	<u>School</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>No Opinion</u>
1. I enjoy teaching	Aa(14)c Bb(8)	71 63	29 38	-- --	-- --	-- --
2. This school is a nice working environment for me.	A (14) B (8)	64 25	36 50	-- 13	-- --	-- 13
3. This school emphasizes in- struction.	A (14) B (8)	36 25	64 50	-- --	-- --	-- 25
4. I get enough support to reach the instructional goals of this school.	A (14) B (8)	29 13	43 50	-- 25	-- --	29 13
5. Instructional goals of this school are too low.	A (14) B (8)	-- --	21 13	36 50	29 13	14 25
6. There is adequate instruc- tional leadership in this school.	A (14) B (8)	29 13	43 50	7 --	-- 13	21 25

a - Alpha School

b - Beta School

c - Figure in parenthesis is sample size, N.

TABLE 4

17

Teacher Responses to Questions About Labs
at Alpha and Beta (Figures in Percentages)

	<u>School</u>	<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>No Opinion</u>
1. Labs are an important part of the learning process at this school.	A ^a (14) ^c	29	43	29	--	--
	B ^b (8)	13	75	--	--	13
2. I teach as well in labs as I do in my regular classroom.	A (14)	43	57	--	--	--
	B (8)	13	63	13	--	13
3. Selection of lab topics is handled effectively.	A (14)	--	64	21	7	7
	B (8)	13	50	25	13	--
4. Sequencing in labs is handled effectively.	A (14)	7	43	43	7	--
	B (8)	--	75	13	--	13
5. I get sufficient help in my lab from the support staff.	A (14)	21	50	14	7	7
	B (8)	13	63	25	--	--
6. Labs should be discontinued next year.	A (14)	7	29	36	21	7
	B (8)	--	13	50	13	25

a - Alpha School

b - Beta School

c - Figure in parenthesis is sample size, N.

TABLE 5

Teacher Responses to Questions About Students
at Alpha and Beta (Figures in Percentages)

	School	Strongly Agree	Agree	Disagree	Strongly Disagree	No Opinion
1. Students should be learning Basic Skills in each lab.	A ^a (14) ^c	43	50	--	--	7
	B ^b (8)	--	88	13	--	--
2. Students are learning Basic Skills in each lab.	A (14)	7	57	36	--	--
	B (8)	--	100	--	--	--
3. Students should be graded on lab work.	A (14)	14	57	7	14	7
	B (8)	13	75	13	--	--
4. Students work as hard in labs as in regular classes..	A (14)	21	29	21	21	7
	B (8)	--	63	38	--	--
5. Students in this school are well behaved.	A (14)	--	64	29	--	7
	B (8)	13	88	--	--	--
6. Students have a strong school spirit in this school.	A (14)	--	43	43	--	14
	B (8)	--	75	13	--	13

a - Alpha School

b - Beta School

c - Figure in parenthesis is sample size, N.

TABLE 6

Teacher Responses to Questions About Parents
at Alpha and Beta (Figures in Percentages)

		<u>Strongly Agree</u>	<u>Agree</u>	<u>Disagree</u>	<u>Strongly Disagree</u>	<u>No Opinion</u>
1. Parents are supportive of our school.	A ^a (14) ^c	36	64	--	--	--
	B ^b (8)	--	75	--	--	25
2. Parents like the lab program.	A (14)	36	43	--	--	21
	B (8)	13	25	13	--	50
3. Parents know this school emphasizes instruction.	A (14)	21	50	--	--	29
	B (8)	--	63	--	--	38
4. Parents have unreasonable expectations of what the school can achieve.	A (14)	--	7	29	21	43
	B (8)	25	13	50	--	13

a - Alpha School

b - Beta School

c - Figure in parenthesis is sample size, N.